

Title (en)

DOUBLE-LINK PISTON CRANK MECHANISM FOR INTERNAL COMBUSTION ENGINE

Title (de)

DOPPELVERKNÜPFUNGS-KOLBENKURBELMECHANISMUS FÜR EINEN VERBRENNUNGSMOTOR

Title (fr)

MÉCANISME À PISTON ET MANIVELLE À DOUBLE BIELLETTE POUR MOTEUR À COMBUSTION INTERNE

Publication

**EP 3246543 A4 20171227 (EN)**

Application

**EP 15877824 A 20150115**

Priority

JP 2015050873 W 20150115

Abstract (en)

[origin: EP3246543A1] A multi-link piston crank mechanism includes a lower link (7) having one end side to which an input load F1 due to a combustion load is acted. The lower link includes a bifurcated one end side protruding piece portion (13) and a bifurcated other end side protruding piece portion (14) which are positioned on both sides of a crank pin bearing portion (12). The bifurcated one end side protruding piece portion sandwiches the other end of an upper link (8). The bifurcated other end side protruding piece portion sandwiches the other end of a control link 9. A thickness of a central portion (12a) of the crank pin bearing portion (12) in a crank shaft axis direction is larger at a portion positioned on the one end side of the lower link (7) than at a portion positioned on the other end side of lower link (7). A thickness of a control link other end portion (32) is larger than a thickness of an upper link other end portion (24).

IPC 8 full level

**F02B 75/04** (2006.01); **F02B 75/32** (2006.01)

CPC (source: EP KR RU US)

**F01M 1/06** (2013.01 - RU US); **F02B 75/04** (2013.01 - KR RU US); **F02B 75/045** (2013.01 - EP RU US); **F02B 75/32** (2013.01 - KR RU US); **F16C 3/14** (2013.01 - RU US); **F16C 3/30** (2013.01 - RU US); **F16C 11/02** (2013.01 - RU US); **F01M 1/02** (2013.01 - US); **F01M 2001/062** (2013.01 - US)

Citation (search report)

- [Y] EP 2053217 A2 20090429 - NISSAN MOTOR [JP]
- [Y] EP 1505277 A1 20050209 - HONDA MOTOR CO LTD [JP]
- [Y] EP 2048335 A1 20090415 - HONDA MOTOR CO LTD [JP]
- [Y] DE 102011104531 A1 20121220 - AUDI AG [DE]
- See also references of WO 2016113872A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 3246543 A1 20171122**; **EP 3246543 A4 20171227**; **EP 3246543 B1 20200520**; CA 2973535 A1 20160721; CA 2973535 C 20180123; CN 107110019 A 20170829; CN 107110019 B 20180629; JP 6229803 B2 20171115; JP WO2016113872 A1 20170831; KR 101799744 B1 20171120; KR 20170096211 A 20170823; MX 2017008630 A 20171020; MX 364194 B 20190416; RU 2652737 C1 20180428; US 10087833 B2 20181002; US 2018023467 A1 20180125; WO 2016113872 A1 20160721

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